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The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

**MAILED**

APR 29 2002

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCESPAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte THOMAS J. DAHLIN, GREGORY F. JACOBS,  
DAVID M. HOPSTOCK, ROBERT L. KEECH, RICHARD G. NEWELL,  
CLAUD M. LACEY, and BERNARD A. GONZALEZ

Appeal No. 1999-2549  
Application No. 08/955,579

OFFICE OF INTELLECTUAL  
PROPERTY COUNSEL  
3M INNOVATIVE PROPERTIES COMPANY

MAY 06 2002

ON BRIEF

REFERRED TO

RPH

Before PAK, WALTZ, and PAWLIKOWSKI, Administrative Patent Judges.  
WALTZ, Administrative Patent Judge.

**DECISION ON APPEAL**

This is a decision on an appeal from the examiner's final rejection of claims 80-85, 88-96, 99-107 and 109-112, which are the only claims remaining in this application (see the Brief, page 4). We have jurisdiction pursuant to 35 U.S.C. § 134.

According to appellants, the invention is directed to a conformable, magnetic pavement marking tape that can

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inelastically deform to accommodate irregularities in the surface to which the tape is applied (Brief, page 6). The invention is set forth in more detail in illustrative independent claim 80, a copy of which is attached as an Appendix to this decision.

The examiner has relied upon the following references as evidence of obviousness:

Blume, Jr. (Blume)	3,359,152	Dec. 19, 1967
Fayling (Fayling '678)	3,609,678	Sep. 28, 1971
Fayling (Fayling '625)	3,714,625	Jan. 30, 1973
Jorgensen	4,117,192	Sep. 26, 1978
Jones et al. (Jones)	4,299,874	Nov. 10, 1981
Ethen et al. (Ethen)	4,388,359	Jun. 14, 1983

Claims 80-85, 88-96, 99-102, 105-107 and 109-112 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Fayling '678 or '625 in view of Jones and Jorgensen (Answer, page 4). Claims 103-104 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Fayling '678 or '625 in view of Jones and Jorgensen further in view of Ethen (Answer, page 5).

We refer to appellants' Brief and the examiner's Answer for a full exposition of the respective positions for and against patentability. We reverse the examiner's rejections on appeal essentially for the reasons stated on pages 8-11 of the Brief and the reasons stated below.

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#### OPINION

The examiner finds that either Fayling reference teaches the use of magnetic particles in polymer binders for placement in tapes on top of road surfaces for use in magnetic sensor-based vehicle guidance systems (Answer, page 4). The examiner further finds that Jorgensen teaches a support layer and a bottom conformable layer of unvulcanized precursors which may contain filler and other additives while Jones teaches a fiber web in a bottom adhesive layer to reinforce the pavement marker (*id.*). From these findings, the examiner draws two conclusions. First, the examiner concludes that it would have been obvious to place the magnetic particles of the Fayling references in the binder of the conformance layers of the "disclosed known conformance tapes" taught by Jorgensen and Jones "in order to provide a longer lasting road surface magnetic tape for vehicle guidance" (Answer, page 5). Secondly, the examiner concludes that it also would have been obvious to put the deformable material layer of Jorgensen in place of the binder in the layer structure of the Fayling references (Answer, page 7). We disagree with both conclusions.

As found by the examiner, the Fayling references disclose binders with up to 75% by volume magnetic fillers "while still

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imparting resilient and flexible properties to the magnetic filler" (Answer, page 4, citing col. 2, ll. 45-65, of Fayling '678). As correctly argued by appellants (Brief, page 8), resilience is the opposite of inelastic deformation, which is the desired property of both appellants' claimed subject matter and Jorgensen and Jones. See, for example, Jorgensen, col. 1, ll. 10-18; col. 2, ll. 57-66; and col. 3, ll. 9-12. Accordingly, the examiner has not identified any convincing reason or evidence to support the combination of the Fayling references with either Jorgensen or Jones.<sup>1</sup> When determining the patentability of a claimed invention which combines two known elements, "the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984). Evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art,

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<sup>1</sup>Although not argued by appellants or the examiner, we note that the binders of the Fayling references, as taught by Blume (e.g., see Fayling '678, col. 1, ll. 51-54), are cured resinous or plastic compositions that are elastic and resilient in contrast to the reduced elasticity of the unvulcanized materials of Jorgensen and Jones (see Jorgensen, col. 2, ll. 57-66, and Jones, col. 3, ll. 16-35).

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or, in some cases, from the nature of the problem to be solved. The showing of evidence must be clear and particular. See *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

The examiner has identified a reason supporting the combination of references so as "to provide a longer lasting road surface magnetic tape for vehicle guidance" (Answer, page 5). As correctly argued by appellants (Brief, page 9, footnote 1), the examiner has not identified where this reasoning is supported in the references. Similarly, the examiner has relied upon the "inherent problem" of the Fayling references<sup>2</sup> as a reason to combine the references but has failed to establish any reasoning to support the finding of this "inherent problem."

The examiner has also failed to identify any convincing evidence or reasoning to support the proposed substitution of the magnetic material of the Fayling references as "fillers" into the structure of Jorgensen or Jones (Answer, page 7). As again correctly argued by appellants (Brief, page 9), the examiner has not identified any convincing evidence or reasoning to support

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<sup>2</sup>The "inherent problem" of the Fayling references is stated by the examiner as "being able to adhere the pavement markers to the road surface in various traffic and weather conditions." Answer, page 6.

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the proposed combination of references, i.e., no reason has been set forth by the examiner why one of ordinary skill in this art would equate the magnetic particles of the Fayling references with the fillers or additives taught by Jorgensen (see Jorgensen, col. 3, ll. 1-8). We note that the examiner has not alleged that Jones discloses or suggests fillers and other additives (Answer, page 4).

For the foregoing reasons and those stated in the Brief, we determine that the examiner has failed to establish a *prima facie* case of obviousness in view of the reference evidence to Fayling '678, Fayling '625, Jorgensen, and Jones. We note that the examiner has additionally applied Ethen against claims 103-104 to show the known use of protuberances in a pavement strip (Answer, page 5). Accordingly, Ethen does not remedy the deficiencies discussed above. Since we determine that no *prima facie* obviousness has been established, we need not reach the issue of the sufficiency of the showing of unexpected results (the Affidavit of Gregory F. Jacobs dated Apr. 22, 1996; see the Brief, pages 10-11). See *In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987). Therefore, the rejection of claims 80-85, 88-96, 99-102, 105-107 and 109-112 under 35 U.S.C. § 103(a) over Fayling '678 or '625 in view of Jorgensen and Jones

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is reversed. Similarly, the rejection of claims 103-104 under 35 U.S.C. § 103(a) over the references above further in view of Ethen is reversed.

The decision of the examiner is reversed.

**REVERSED**

  
Chung K. Pak

Chung K. Pak  
Administrative Patent Judge

Thomas A. Wally

Thomas A. Waltz  
Administrative Patent Judge

Beverly S. Williams

Beverly A. Pawlikowski  
Administrative Patent Judge

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**APPENDIX**

80. An article comprising a conformable magnetic layer comprising:

(a) an organic binder; and

(b) at least 30 volume percent magnetic particles distributed in said organic binder, the magnetic particles capable of being remanantly magnetized to produce a magnetic field sufficient to be sensed by a sensor, said conformable layer being sufficiently conformable to demonstrate at least 25% inelastic deformation under the inelastic deformation test.